SEQUENCE LISTING

<110> Zhu, J.
Ding, A.
Nathan, C.

<120> Use of proepithelin to promote wound repair and reduce inflammation

<130> 1676.011US1

<140> US 10/735,289
<141> 2003-12-12

<150> 60/432,948
<151> 2002-12-12

<160> 32

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 593
<212> PRT
<213> Homo sapiens

<400> 1

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Asp Pro Gly Gly Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys
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Trp Pro Thr Thr Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp
    50                  55                  60
Ala His Cys Ser Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr
65                  70                  75                  80
Ser Ser Cys Cys Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His
                85                  90                  95
His Cys Cys Pro Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys
            100                 105                 110
Phe Gln Arg Ser Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp
        115                 120                 125
Ser Gln Phe Glu Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp
    130                 135                 140
Gly Ser Trp Gly Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp
145                 150                 155                 160
Arg Val His Cys Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr
                165                 170                 175
Arg Cys Ile Thr Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro
            180                 185                 190
Ala Gln Arg Thr Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys
        195                 200                 205
Pro Asp Ala Arg Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu
    210                 215                 220
Pro Ser Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys
225                 230                 235                 240
Ser Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile
                245                 250                 255
Gln Ser Lys Cys Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr
            260                 265                 270
Lys Leu Pro Ala His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val
        275                 280                 285
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Ser Cys Pro Asp Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp
    290                 295                 300
Gly Cys Cys Pro Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His
305                 310                 315                 320
Cys Cys Pro Ala Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu
                325                 330                 335
Gln Gly Pro His Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu
            340                 345                 350
Ser Leu Pro Asp Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn
        355                 360                 365
Val Ser Ser Cys Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly
    370                 375                 380
Glu Trp Gly Cys Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His
385                 390                 395                 400
Gln His Cys Cys Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys
                405                 410                 415
Gln Arg Gly Ser Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg
            420                 425                 430
Arg Ala Ser Leu Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr
        435                 440                 445
Ser Cys Pro Val Gly Gly Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp
    450                 455                 460
Ala Cys Cys Gln Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His
465                 470                 475                 480
Cys Cys Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu
                485                 490                 495
Lys Glu Val Val Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro
            500                 505                 510
His Val Gly Val Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His
        515                 520                 525
Asp Asn Gln Thr Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys
    530                 535                 540
Pro Tyr Arg Gln Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro
545                 550                 555                 560
Ala Gly Phe Arg Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu
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Ala Pro Arg Trp Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu
            580                 585                 590
Leu
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<210> 2
<211> 593
<212> PRT
<213> Homo sapiens

<400> 2

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Asp Pro Gly Gly Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys
        35                  40                  45
Trp Pro Thr Thr Leu Ser Arg His Leu Gly Gly Pro Cys Gln Val Asp
    50                  55                  60
Ala His Cys Ser Ala Gly His Ser Cys Ile Phe Thr Val Ser Gly Thr
65                  70                  75                  80
Ser Ser Cys Cys Pro Phe Pro Glu Ala Val Ala Cys Gly Asp Gly His
                85                  90                  95
His Cys Cys Pro Arg Gly Phe His Cys Ser Ala Asp Gly Arg Ser Cys
            100                 105                 110
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Phe Gln Arg Ser Gly Asn Asn Ser Val Gly Ala Ile Gln Cys Pro Asp
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Ser Gln Phe Glu Cys Pro Asp Phe Ser Thr Cys Cys Val Met Val Asp
    130                 135                 140
Gly Ser Trp Gly Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp
145                 150                 155                 160
Arg Val His Cys Cys Pro His Gly Ala Phe Cys Asp Leu Val His Thr
                165                 170                 175
Arg Cys Ile Thr Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro
            180                 185                 190
Ala Gln Arg Thr Asn Arg Ala Val Ala Leu Ser Ser Ser Val Met Cys
        195                 200                 205
Pro Asp Ala Arg Ser Arg Cys Pro Asp Gly Ser Thr Cys Cys Glu Leu
    210                 215                 220
Pro Ser Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala Thr Cys Cys
225                 230                 235                 240
Ser Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile
                245                 250                 255
Gln Ser Lys Cys Leu Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr
            260                 265                 270
Lys Leu Pro Ala His Thr Val Gly Asp Val Lys Cys Asp Met Glu Val
        275                 280                 285
Ser Cys Pro Asp Gly Tyr Thr Cys Cys Arg Leu Gln Ser Gly Ala Trp
    290                 295                 300
Gly Cys Cys Pro Phe Thr Gln Ala Val Cys Cys Glu Asp His Ile His
305                 310                 315                 320
Cys Cys Pro Ala Gly Phe Thr Cys Asp Thr Gln Lys Gly Thr Cys Glu
                325                 330                 335
Gln Gly Pro His Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu
            340                 345                 350
Ser Leu Pro Asp Pro Gln Ala Leu Lys Arg Asp Val Pro Cys Asp Asn
        355                 360                 365
Val Ser Ser Cys Pro Ser Ser Asp Thr Cys Cys Gln Leu Thr Ser Gly
    370                 375                 380
Glu Trp Gly Cys Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp His
385                 390                 395                 400
Gln His Cys Cys Pro Gln Gly Tyr Thr Cys Val Ala Glu Gly Gln Cys
                405                 410                 415
Gln Arg Gly Ser Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg
            420                 425                 430
Arg Ala Ser Leu Ser His Pro Arg Asp Ile Gly Cys Asp Gln His Thr
        435                 440                 445
Ser Cys Pro Val Gly Gln Thr Cys Cys Pro Ser Leu Gly Gly Ser Trp
    450                 455                 460
Ala Cys Cys Gln Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His
465                 470                 475                 480
Cys Cys Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala Arg Ser Cys Glu
                485                 490                 495
Lys Glu Val Val Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro
            500                 505                 510
His Val Gly Val Lys Asp Val Glu Cys Gly Glu Gly His Phe Cys His
        515                 520                 525
Asp Asn Gln Thr Cys Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys
    530                 535                 540
Pro Tyr Arg Gln Gly Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro
545                 550                 555                 560
Ala Gly Phe Arg Cys Ala Ala Arg Gly Thr Lys Cys Leu Arg Arg Glu
                565                 570                 575
Ala Pro Arg Trp Asp Ala Pro Leu Arg Asp Pro Ala Leu Arg Gln Leu
            580                 585                 590
Leu
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<210> 3
<211> 2178
<212> DNA
<213> Homo sapiens

<400> 3
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gcccagatgg tcagttctgc cctgtggcct gctgcctgga ccccggagga gccagctaca 180
gctgctgccg tccccttctg gacaaatggc ccacaacact gagcaggcat ctgggtggcc 240
cctgccaggt tgatgcccac tgctctgccg gccactcctg catctttacc gtctcaggga 300
cttccagttg ctgccccttc ccagaggccg tggcatgcgg ggatggccat cactgctgcc 360
cacggggctt ccactgcagt gcagacgggc gatcctgctt ccaaagatca ggtaacaact 420
ccgtgggtgc catccagtgc cctgatagtc agttcgaatg cccggacttc tccacgtgct 480
gtgttatggt cgatggctcc tgggggtgct gccccatgcc ccaggcttcc tgctgtgaag 540
acagggtgca ctgctgtccg cacggtgcct tctgcgacct ggttcacacc cgctgcatca 600
cacccacggg cacccaccc ctggcaaaga agctccctgc ccagaggact aacagggcag 660
tggccttgtc cagctcggtc atgtgtccgg acgcacggtc ccggtgccct gatggttcta 720
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gagacatcgg ctgtgaccag cacaccagct gcccggtggg gcagacctgc tgcccgagcc 1440
tgggtgggag ctgggcctgc tgccagttgc cccatgctgt gtgctgcgag gatcgccagc 1500
actgctgccc ggctggctac acctgcaacg tgaaggctcg atcctgcgag aaggaagtgg 1560
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aaaaaaaaaa aaaaaaaa 2178

<210> 4
<211> 589
<212> PRT
<213> Mus musculus

<400> 4
Met Trp Val Leu Met Ser Trp Leu Ala Phe Ala Ala Gly Leu Val Ala
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Gly Thr Gln Cys Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu
            20   25   30
Asp Gln Gly Gly Ala Asn Tyr Ser Cys Cys Asn Pro Leu Leu Asp Thr
        35   40   45
Trp Pro Arg Ile Thr Ser His His Leu Asp Gly Ser Cys Gln Thr His
    50   55   60
Gly His Cys Pro Ala Gly Tyr Ser Cys Leu Leu Thr Val Ser Gly Thr
65   70   75   80

```
Ser Ser Cys Cys Pro Phe Ser Lys Gly Val Ser Cys Gly Asp Gly Tyr
                85                  90                  95
His Cys Cys Pro Gln Gly Phe His Cys Ser Ala Asp Gly Lys Ser Cys
            100                 105                 110
Phe Gln Met Ser Asp Asn Pro Leu Gly Ala Val Gln Cys Pro Gly Ser
        115                 120                 125
Gln Phe Glu Cys Pro Asp Ser Ala Thr Cys Cys Ile Met Val Asp Gly
    130                 135                 140
Ser Trp Gly Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg
145                 150                 155                 160
Val His Cys Cys Pro His Gly Ala Ser Cys Asp Leu Val His Thr Arg
                165                 170                 175
Cys Val Ser Pro Thr Gly Thr His Thr Leu Leu Lys Lys Phe Pro Ala
            180                 185                 190
Gln Lys Thr Asn Arg Ala Val Ser Leu Pro Phe Ser Val Val Cys Pro
        195                 200                 205
Asp Ala Lys Thr Gln Cys Pro Asp Asp Ser Thr Cys Cys Glu Leu Pro
    210                 215                 220
Thr Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala Ile Cys Cys Ser
225                 230                 235                 240
Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln
                245                 250                 255
Ser Lys Cys Leu Ser Lys Asn Tyr Thr Thr Asp Leu Leu Thr Lys Leu
            260                 265                 270
Pro Gly Tyr Pro Val Lys Glu Val Lys Cys Asp Met Glu Val Ser Cys
        275                 280                 285
Pro Glu Gly Tyr Thr Cys Cys Arg Leu Asn Thr Gly Ala Trp Gly Cys
    290                 295                 300
Cys Pro Phe Ala Lys Ala Val Cys Cys Glu Asp His Ile His Cys Cys
305                 310                 315                 320
Pro Ala Gly Phe Gln Cys His Thr Glu Lys Gly Thr Cys Glu Met Gly
                325                 330                 335
Ile Leu Gln Val Pro Trp Met Lys Lys Val Ile Ala Pro Leu Arg Leu
            340                 345                 350
Pro Asp Pro Gln Ile Leu Lys Ser Asp Thr Pro Cys Asp Asp Phe Thr
        355                 360                 365
Arg Cys Pro Thr Asn Asn Thr Cys Cys Lys Leu Asn Ser Gly Asp Trp
    370                 375                 380
Gly Cys Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp Asn Gln His
385                 390                 395                 400
Cys Cys Pro Gln Gly Phe Thr Cys Leu Ala Gln Gly Tyr Cys Gln Lys
                405                 410                 415
Gly Asp Thr Met Val Ala Gly Leu Glu Lys Ile Pro Ala Arg Gln Thr
            420                 425                 430
Thr Pro Leu Gln Ile Gly Asp Ile Gly Cys Asp Gln His Thr Ser Cys
        435                 440                 445
Pro Val Gly Gln Thr Cys Cys Pro Ser Leu Lys Gly Ser Trp Ala Cys
    450                 455                 460
Cys Gln Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys
465                 470                 475                 480
Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala Arg Thr Cys Glu Lys Asp
                485                 490                 495
Val Asp Phe Ile Gln Pro Pro Val Leu Leu Thr Leu Gly Pro Lys Val
            500                 505                 510
Gly Asn Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
        515                 520                 525
Cys Cys Lys Asp Ser Ala Gly Val Trp Ala Cys Cys Pro Tyr Leu Lys
    530                 535                 540
Gly Val Cys Cys Arg Asp Gly Arg His Cys Cys Pro Gly Gly Phe His
545                 550                 555                 560
Cys Ser Ala Arg Gly Thr Lys Cys Leu Arg Lys Lys Ile Pro Arg Trp
                565                 570                 575
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Asp Met Phe Leu Arg Asp Pro Val Pro Arg Pro Leu Leu
            580                 585


<210> 5
<211> 589
<212> PRT
<213> Mus musculus

<400> 5
Met Trp Val Leu Met Ser Trp Leu Ala Phe Ala Ala Gly Leu Val Ala
 1               5                  10                  15
Gly Thr Gln Cys Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu
            20                  25                  30
Asp Gln Gly Gly Ala Asn Tyr Ser Cys Cys Asn Pro Leu Leu Asp Thr
        35                  40                  45
Trp Pro Arg Ile Thr Ser His His Leu Asp Gly Ser Cys Gln Thr His
    50                  55                  60
Gly His Cys Pro Ala Gly Tyr Ser Cys Leu Leu Thr Val Ser Gly Thr
65                  70                  75                  80
Ser Ser Cys Cys Pro Phe Ser Lys Gly Val Ser Cys Gly Asp Gly Tyr
                85                  90                  95
His Cys Cys Pro Gln Gly Phe His Cys Ser Ala Asp Gly Lys Ser Cys
            100                 105                 110
Phe Gln Met Ser Asp Asn Pro Leu Gly Ala Val Gln Cys Pro Gly Ser
        115                 120                 125
Gln Phe Glu Cys Pro Asp Ser Ala Thr Cys Cys Ile Met Val Asp Gly
    130                 135                 140
Ser Trp Gly Cys Cys Pro Met Pro Gln Ala Ser Cys Cys Glu Asp Arg
145                 150                 155                 160
Val His Cys Cys Pro His Gly Ala Ser Cys Asp Leu Val His Thr Arg
                165                 170                 175
Cys Val Ser Pro Thr Gly Thr His Thr Leu Leu Lys Lys Phe Pro Ala
            180                 185                 190
Gln Lys Thr Asn Arg Ala Val Ser Leu Pro Phe Ser Val Val Cys Pro
        195                 200                 205
Asp Ala Lys Thr Gln Cys Pro Asp Asp Ser Thr Cys Cys Glu Leu Pro
    210                 215                 220
Thr Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala Ile Cys Cys Ser
225                 230                 235                 240
Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys Asp Leu Ile Gln
                245                 250                 255
Ser Lys Cys Leu Ser Lys Asn Tyr Thr Thr Asp Leu Leu Thr Lys Leu
            260                 265                 270
Pro Gly Tyr Pro Val Lys Glu Val Lys Cys Asp Met Glu Val Ser Cys
        275                 280                 285
Pro Glu Gly Tyr Thr Cys Cys Arg Leu Asn Thr Gly Ala Trp Gly Cys
    290                 295                 300
Cys Pro Phe Ala Lys Ala Val Cys Cys Glu Asp His Ile His Cys Cys
305                 310                 315                 320
Pro Ala Gly Phe Gln Cys His Thr Glu Lys Gly Thr Cys Glu Met Gly
                325                 330                 335
Ile Leu Gln Val Pro Trp Met Lys Lys Val Ile Ala Pro Leu Arg Leu
            340                 345                 350
Pro Asp Pro Gln Ile Leu Lys Ser Asp Thr Pro Cys Asp Asp Phe Thr
        355                 360                 365
Arg Cys Pro Thr Asn Asn Thr Cys Cys Lys Leu Asn Ser Gly Asp Trp
    370                 375                 380
Gly Cys Cys Pro Ile Pro Glu Ala Val Cys Cys Ser Asp Asn Gln His
385                 390                 395                 400
Cys Cys Pro Gln Gly Phe Thr Cys Leu Ala Gln Gly Tyr Cys Gln Lys
                405                 410                 415
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Gly Asp Thr Met Val Ala Gly Leu Glu Lys Ile Pro Ala Arg Gln Thr
            420                 425                 430
Thr Pro Leu Gln Ile Gly Asp Ile Gly Cys Asp Gln His Thr Ser Cys
        435                 440                 445
Pro Val Gly Gln Thr Cys Cys Pro Ser Leu Lys Gly Ser Trp Ala Cys
    450                 455                 460
Cys Gln Leu Pro His Ala Val Cys Cys Glu Asp Arg Gln His Cys Cys
465                 470                 475                 480
Pro Ala Gly Tyr Thr Cys Asn Val Lys Ala Arg Thr Cys Glu Lys Asp
                485                 490                 495
Val Asp Phe Ile Gln Pro Pro Val Leu Leu Thr Leu Gly Pro Lys Val
            500                 505                 510
Gly Asn Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr
        515                 520                 525
Cys Cys Lys Asp Ser Ala Gly Val Trp Ala Cys Cys Pro Tyr Leu Lys
    530                 535                 540
Gly Val Cys Cys Arg Asp Gly Arg His Cys Cys Pro Gly Gly Phe His
545                 550                 555                 560
Cys Ser Ala Arg Gly Thr Lys Cys Leu Arg Lys Lys Ile Pro Arg Trp
                565                 570                 575
Asp Met Phe Leu Arg Asp Pro Val Pro Arg Pro Leu Leu
            580                 585
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<210> 6
<211> 2145
<212> DNA
<213> Mus musculus

<400> 6

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cctgttgcct gctgccttga ccagggagga gccaactaca gctgctgtaa ccctcttctg 180
gacacatggc ctagaataac gagccatcat ctagatggct cctgccagac ccatggccac 240
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cgagggtacc cactactcag gcctccctag cgcctcctcc cctaacgtct ccccggccta 1920
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gaccttgtgg ccaggtgctc ttcccgagcc acaggtgttc tgtgagcttg cttgtgtgtg 2100
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<210> 7
<211> 132
<212> PRT
<213> Homo sapiens

<400> 7
Met Lys Ser Ser Gly Leu Phe Pro Phe Leu Val Leu Leu Ala Leu Gly
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Thr Leu Ala Pro Trp Ala Val Glu Gly Ser Gly Lys Ser Phe Lys Ala
            20   25   30
Gly Val Cys Pro Pro Lys Lys Ser Ala Gln Cys Leu Arg Tyr Lys Lys
        35   40   45
Pro Glu Cys Gln Ser Asp Trp Gln Cys Pro Gly Lys Lys Arg Cys Cys
    50   55   60
Pro Asp Thr Cys Gly Ile Lys Cys Leu Asp Pro Val Asp Thr Pro Asn
65   70   75   80
Pro Thr Arg Arg Lys Pro Gly Lys Cys Pro Val Thr Tyr Gly Gln Cys
                85   90   95
Leu Met Leu Asn Pro Pro Asn Phe Cys Glu Met Asp Gly Gln Cys Lys
            100   105   110
Arg Asp Leu Lys Cys Cys Met Gly Met Cys Gly Lys Ser Cys Val Ser
        115   120   125
Pro Val Lys Ala
    130

<210> 8
<211> 625
<212> DNA
<213> Homo sapiens

<400> 8
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ttcctgccat atggaggagg ctctggagtc ctgctctgtg tggtccaggt ccttttccacc 480
ctgagacttg gctccaccac tgatatcctc ctttggggaa aggcttggca cacagcaggc 540
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aaaaaaaaaa aaaaaaaaaa aaaaa 625

<210> 9
<211> 131
<212> PRT
<213> Mus musculus

<400> 9
Met Lys Ser Cys Gly Leu Leu Pro Phe Thr Val Leu Leu Ala Leu Gly
 1   5   10   15
Ile Leu Ala Pro Trp Thr Val Glu Gly Gly Lys Asn Asp Ala Ile Lys
            20   25   30
Ile Gly Ala Cys Pro Ala Lys Lys Pro Ala Gln Cys Leu Lys Leu Glu
        35   40   45

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Lys Pro Gln Cys Arg Thr Asp Trp Glu Cys Pro Gly Lys Gln Arg Cys
    50                  55                  60
Cys Gln Asp Ala Cys Gly Ser Lys Cys Val Asn Pro Val Pro Ile Arg
65                  70                  75                  80
Lys Pro Val Trp Arg Lys Pro Gly Arg Cys Val Lys Thr Gln Ala Arg
                85                  90                  95
Cys Met Met Leu Asn Pro Pro Asn Val Cys Gln Arg Asp Gly Gln Cys
            100                 105                 110
Asp Gly Lys Tyr Lys Cys Cys Glu Gly Ile Cys Gly Lys Val Cys Leu
        115                 120                 125
Pro Pro Met
    130
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<211> 1123
<212> DNA
<213> Mus musculus

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cacaaggtat gtctgactca aaagttcagg ctctcgatga ctgtgcggtg ctgcccagtg 180
tgtcttcttc aatgtaacct caggacctag aacagcacct tgcatgtgct ctcaggtggt 240
tactctgatg gcctcatggt cctgcctgaa acagaaagtc tgccacctac ttctgtagca 300
gcaagactcc tgttctgtgg ctaagcttcc tgcctgtgca agagccacag ggaggggcca 360
aatgcatgcc actggggcca cgcctcctgg taaagacata aatagtgatc ctcgggactg 420
gtcatcagag ctcccctgcc ttcaccatga agtcctgcgg ccttttacct ttcacggtgc 480
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<210> 11
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> A T7 translation inititation sequence.

<400> 11
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<210> 12
<211> 16
<212> PRT
<213> Homo sapiens

<400> 12
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 1               5                  10                  15
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<210> 13
<211> 41
<212> PRT
<213> Homo sapiens

<400> 13
Gly Thr Arg Cys Pro Asp Gly Gln Phe Cys Pro Val Ala Cys Cys Leu
 1   5   10   15
Asp Pro Gly Gly Ala Ser Tyr Ser Cys Cys Arg Pro Leu Leu Asp Lys
            20   25   30
Trp Pro Thr Thr Leu Ser Arg His Leu
        35   40

<210> 14
<211> 56
<212> PRT
<213> Homo sapiens

<400> 14
Gly Gly Pro Cys Gln Val Asp Ala His Cys Ser Ala Gly His Ser Cys
 1   5   10   15
Ile Phe Thr Val Ser Gly Thr Ser Ser Cys Cys Pro Phe Pro Glu Ala
            20   25   30
Val Ala Cys Gly Asp Gly His His Cys Cys Pro Arg Gly Phe His Cys
        35   40   45
Ser Ala Asp Gly Arg Ser Cys Phe
    50   55

<210> 15
<211> 9
<212> PRT
<213> Homo sapiens

<400> 15
Gln Arg Ser Gly Asn Asn Ser Val Gly
 1   5

<210> 16
<211> 57
<212> PRT
<213> Homo sapiens

<400> 16
Ala Ile Gln Cys Pro Asp Ser Gln Phe Glu Cys Pro Asp Phe Ser Thr
 1   5   10   15
Cys Cys Val Met Val Asp Gly Ser Trp Gly Cys Cys Pro Met Pro Gln
            20   25   30
Ala Ser Cys Cys Glu Asp Arg Val His Cys Cys Pro His Gly Ala Phe
        35   40   45
Cys Asp Leu Val His Thr Arg Cys Ile
    50   55

<210> 17
<211> 26
<212> PRT
<213> Homo sapiens

<400> 17
Thr Pro Thr Gly Thr His Pro Leu Ala Lys Lys Leu Pro Ala Gln Arg
 1   5   10   15
Thr Asn Arg Ala Val Ala Leu Ser Ser Ser
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<210> 18
<211> 56
<212> PRT
<213> Homo sapiens

<400> 18
Val Met Cys Pro Asp Ala Arg Ser Arg Cys Pro Asp Gly Ser Thr Cys
 1   5   10   15
Cys Glu Leu Pro Ser Gly Lys Tyr Gly Cys Cys Pro Met Pro Asn Ala
            20   25   30
Thr Cys Cys Ser Asp His Leu His Cys Cys Pro Gln Asp Thr Val Cys
        35   40   45
Asp Leu Ile Gln Ser Lys Cys Leu
    50   55

<210> 19
<211> 19
<212> PRT
<213> Homo sapiens

<400> 19
Ser Lys Glu Asn Ala Thr Thr Asp Leu Leu Thr Lys Leu Pro Ala His
 1   5   10   15
Thr Val Gly

<210> 20
<211> 56
<212> PRT
<213> Homo sapiens

<400> 20
Asp Val Lys Cys Asp Met Glu Val Ser Cys Pro Asp Gly Tyr Thr Cys
 1   5   10   15
Cys Arg Leu Gln Ser Gly Ala Trp Gly Cys Cys Pro Phe Thr Gln Ala
            20   25   30
Val Cys Cys Glu Asp His Ile His Cys Cys Pro Ala Gly Phe Thr Cys
        35   40   45
Asp Thr Gln Lys Gly Thr Cys Glu
    50   55

<210> 21
<211> 27
<212> PRT
<213> Homo sapiens

<400> 21
Gln Gly Pro His Gln Val Pro Trp Met Glu Lys Ala Pro Ala His Leu
 1   5   10   15
Ser Leu Pro Asp Pro Gln Ala Leu Lys Arg Asp
            20   25

<210> 22
<211> 54
<212> PRT
<213> Homo sapiens

<400> 22
Val Pro Cys Asp Asn Val Ser Ser Cys Pro Ser Ser Asp Thr Cys Cys
 1   5   10   15
Gln Leu Thr Ser Gly Glu Trp Gly Cys Cys Pro Ile Pro Glu Ala Val
            20   25   30
Cys Cys Ser Asp His Gln His Cys Cys Pro Gln Arg Tyr Thr Cys Val
        35   40   45
Ala Glu Gly Gln Cys Gln
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<210> 23
<211> 24
<212> PRT
<213> Homo sapiens

<400> 23
Arg Gly Ser Glu Ile Val Ala Gly Leu Glu Lys Met Pro Ala Arg Arg
 1   5   10   15
Ala Ser Leu Ser His Pro Arg Asp
            20

<210> 24
<211> 55
<212> PRT
<213> Homo sapiens

<400> 24
Ile Gly Cys Asp Gln His Thr Ser Cys Pro Val Gly Gly Thr Cys Cys
 1   5   10   15
Pro Ser Leu Gly Gly Ser Trp Ala Cys Cys Gln Leu Pro His Ala Val
            20   25   30
Cys Cys Glu Asp Arg Gln His Cys Cys Pro Ala Gly Tyr Thr Cys Asn
        35   40   45
Val Lys Ala Arg Ser Cys Glu
    50   55

<210> 25
<211> 21
<212> PRT
<213> Homo sapiens

<400> 25
Lys Glu Val Val Ser Ala Gln Pro Ala Thr Phe Leu Ala Arg Ser Pro
 1   5   10   15
His Val Gly Val Lys
            20

<210> 26
<211> 56
<212> PRT
<213> Homo sapiens

<400> 26
Asp Val Glu Cys Gly Glu Gly His Phe Cys His Asp Asn Gln Thr Cys
 1   5   10   15
Cys Arg Asp Asn Arg Gln Gly Trp Ala Cys Cys Pro Tyr Arg Gln Gly
            20   25   30
Val Cys Cys Ala Asp Arg Arg His Cys Cys Pro Ala Gly Phe Arg Cys
        35   40   45
Ala Ala Arg Gly Thr Lys Cys Leu
    50   55

<210> 27
<211> 20
<212> PRT
<213> Homo sapiens

<400> 27
Arg Arg Glu Ala Pro Arg Trp Asp Ala Pro Leu Arg Asp Pro Ala Leu
 1   5   10   15
Arg Gln Leu Leu
            20

<210> 28
<211> 13
<212> PRT
<213> Homo sapiens

<400> 28
Asn Ser Val Gly Ala Ile Gln Cys Pro Asp Ser Gln Phe
 1   5   10

<210> 29
<211> 20
<212> PRT
<213> Homo sapiens

<400> 29
Ala Pro Ala His Leu Ser Leu Pro Asp Pro Gln Ala Leu Lys Arg Asp
 1   5   10   15
Val Pro Cys Asp
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<210> 30
<211> 13
<212> PRT
<213> Homo sapiens

<400> 30
Val Gly Val Lys Asp Val Glu Cys Gly Glu Gly His Phe
 1   5   10

<210> 31
<211> 14
<212> PRT
<213> Homo sapiens

<400> 31
Trp Pro Thr Thr Leu Ser Arg His Leu Gly Gly Pro Cys Gln
 1   5   10

<210> 32
<211> 13
<212> PRT
<213> Homo sapiens

<400> 32
Ala Ser Leu Ser His Pro Arg Asp Ile Gly Cys Asp Gln
 1   5   10